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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,197

04/20/2007

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EXAMINER

HUYNH, PHUONG

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/587,197</p>	<p>Applicant(s) DOUGHERTY ET AL.</p>	
	<p>Examiner PHUONG HUYNH</p>	<p>Art Unit 2857</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 November 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: _____.
- Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Eliseo Ramos-Feliciano/
Supervisory Patent Examiner, Art Unit 2857

Continuation of 11. does NOT place the application in condition for allowance because: Regarding claims 1 and 35, Applicant argues that Arai (USPAP 2003/0025506) does not disclose "DETERMINE THAT A TEST OF THE BATTERY SHOULD BE PERFORMED WHEN A FIRST CONDITION IS SATISFIED, wherein the first condition relates to at least one of the prior usage of the battery and the current state of the battery" [see Applicant's Remarks: Pages 8-10].

**** In response, Arai discloses at Paragraphs [0006]-[0012] that " Thus, to correctly know a charged state of the battery, it is necessary to find its present full charging capacity. Therefore, it is important to find a latest degradation state of the battery which appears with its repeated charging and discharging operations. For knowing the degradation degree of the battery, an original full charging capacity is measured when the battery is new, and the original full charging capacity is compared with a present full charging capacity of the battery. Conventionally, a battery is completely discharged from its full charged state, while a discharge current value and a discharge time are measured to obtain a discharging current capacity which is considered as a present capacity of the battery. In a vehicle having an ordinary engine and in a hybrid vehicle having a motor generator which acts at an insufficient torque state of an engine, a battery needs to output a large quantity of power at the initial starting of the engine. After the starting, an alternator or the motor generator provides an electrical power to charge the battery into a full charged state during an operation state of the vehicle. In this vehicle, to know a present full charge capacity of the battery, it is necessary to remove the battery from the vehicle to completely discharge the battery from its full charged state. This work is unpractical and disadvantageous. THEREFORE, TO MONITOR A DEGRADATION OF THE BATTERY IN A STATE WHERE THE BATTERY HAS BEEN MOUNTED ON THE VEHICLE, FACTORS VARYING WITH THE DEGRADATION DEGREE OF THE BATTERY ARE MEASURED. THIS IS IMPORTANT TO KNOW A PRESENT DEGRADATION DEGREE OF THE BATTERY.

One of the factors varying with the degradation degree of the battery is a concentration polarization impedance (combined resistance). The concentration polarization impedance causes a voltage drop between a pair of terminals of the battery. The voltage drop consists of an IR loss (base resistance, i.e. a voltage drop due to an ohmic resistance) and a voltage drop due to a polarization resistance (activation polarization and concentration polarization) related to a chemical reaction. Thus, a present degradation degree of the battery can be known by monitoring how the base resistance, the activation polarization, and the concentration polarization resistance vary from their original values to drop the terminal voltage of the battery."

**** Further, Arai discloses at Paragraph [0072] that "vehicle has a battery for supplying an electric power to loads mounted on the vehicle. The battery has generally a normal output voltage of 12V or 42V. The vehicle may be an EV (electric vehicle) or a HEV (hybrid electrical vehicle). Such vehicles have an electric load requiring a larger current like a stator motor, a motor generator, or a vehicle driving motor. For example, after a larger current electric load like a starter motor is turned on, a rush current flows through the electric load at an initial step of the starting. Then, the current flowing through the electric load becomes constant according to a capacity of the electric load. When the starter motor is a DC motor, a rush current flowing through a field coil of the motor is illustrated in FIG. 6. The rush current increases sharply up to a peak, e.g. of 500 A (ampere) during a short period, e.g. of 3 milliseconds just after the starting of the electric load. The peak value is several times a normal constant current. The rush current decreases from the peak to the constant value during a comparatively short period, e.g. of 150 milliseconds, which is a discharge current supplied from a battery. IN A STATE WHERE A RUSH CURRENT IS FLOWING THROUGH THE ELECTRIC LOAD, A DISCHARGE CURRENT AND CORRESPONDING VOLTAGE BETWEEN A PAIR OF TERMINALS OF THE BATTERY ARE MEASURED. THEREBY, A CORRELATION BETWEEN THE DISCHARGED CURRENT (I) AND THE TERMINAL VOLTAGE (V) OF THE BATTERY IS OBTAINED, WHICH SHOWS THE TERMINAL VOLTAGE VARYING WITH THE DISCHARGE CURRENT IN A WIDE REGION OF THE DISCHARGE CURRENT (EMPHASIS ADDED).

**** Hence, Arai discloses "DETERMINE THAT A TEST OF THE BATTERY SHOULD BE PERFORMED WHEN A FIRST CONDITION IS SATISFIED, wherein the first condition relates to at least one of the prior usage of the battery and the current state of the battery" as claimed.